

Customer No.: 31561
Docket No.: 12190-US-PA
Application No.: 10/708,015

REMARKS

Claim Rejections 35 U.S.C. 103

Claims 1-3, 6, 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langan et al (US 6,766,064) in view of Ferguson (US 6,907,143).

In response thereto, Applicant submit that the present invention, as set forth in claims 1-3, 6, 7 are neither taught, disclosed, nor suggested by Langan, Ferguson, taken alone or in combination, and thus should be allowable.

With respect to claim 1, as originally filed, recites in part:

An automatic contrast limiting circuit ... comprising:

...

a contrast evaluator, coupled to the peak value detector, for evaluating the contrast value according to the peak value and a predetermined threshold.

Applicants submit that Langan, Ferguson, taken alone or in combination, fail to teach "a contrast evaluator, coupled to the peak value detector, for evaluating the contrast value according to the peak value and a **predetermined threshold**", as required by the present invention, as set forth in claim 1 (Emphasis added).

In rejecting claim 1, addressing this limitation, the Examiner designated Fig. 10 items 102-106 of Langan reference. However, throughout the context related to Fig. 10 and the corresponding items 102-106, Langan is silent about "evaluating the contrast value according to the peak value and a predetermined threshold".

In the present invention, the contrast value is evaluated according to the peak

Customer No.: 31561
Docket No.: 12190-US-PA
Application No.: 10/708,015

value and a predetermined threshold, instead of evaluating the contrast value according to the input related reference value and the predetermined threshold. As stated in the Paragraph [0007] of the specification of the invention,

"...the APL method is not applicable to circumstances when background is dim, such as being indoor, in the night, in a basement, in a tunnel, in a cave or in a forest. Since picture background is low in brightness, flashlight is generally applied so as to brighten up photographing object. Yet providing the object is found relatively small to the picture area, the APL value remains low, which results in a relatively higher contrast setup referring to this APL. Therefore, the object is over saturated and the image is thus poorly defined"

The method of evaluating the contrast value according to the peak value and a predetermined threshold can significantly avoid the circumstances when background is dim.

As such, even as proposed by the Examiner, when modified by teachings of Ferguson, each and every limitation is not found having been disclosed by the cited prior art references. Therefore, the present invention, as set forth in independent claim 1 and its dependent claims 2 and 3 are submitted to be novel and unobvious over Langan, Ferguson, or any of the other cited references, taken alone or in combination, and thus should be allowable.

Furthermore, Applicants submit that claim 3 also hold patentability by its own words.

Customer No.: 31561
Docket No.: 12190-US-PA
Application No.: 10/708,015

As required by claim 3, **“when the contrast evaluator determines the peak value higher than the predetermined threshold, the contrast value is 1; otherwise, the contrast value is a value of the predetermined threshold divided by the peak value”** (Emphasis added). Accordingly, one of ordinary skill in the art should understand that according to the present invention, as set forth in claim 3, the minimum contrast gain of the present invention is set to be 1 when the peak value is evaluated as higher than the predetermined threshold, while the others of those darker areas would be greater than 1 and the value of which could be evaluated in accordance with the peak value and the predetermined threshold”..

In rejecting claim 3, addressing this limitation, the Examiner designated Langan at col. 8, lines 4-11, and col. 6, lines 45-61. However, Langan teaches in the designated section that “[T]he contrast modification Cy is a linear gain ... the gain is nominally unity in the heart and in other, relatively darker anatomical regions where clinically relevant information exists”. In such a way, Langan in fact sets contrast gain of the heart and darker regions as 1, and sets contrast gain of brighter regions as less than 1. Therefore, the claimed subject matter of claim 3 is not at all disclosed by Langan, as well as Ferguson, or any of the other cited references, taken alone or in combination, and thus should be allowable.

As to claim 6, it includes limitation of “evaluating the contrast value according to the peak value and a predetermined threshold”. For reason similar with that addressing the allowability of claim 1, i.e., “Langan, Ferguson, taken alone or in combination, fail to teach ‘evaluating the contrast value according to the peak value and a **predetermined threshold**’”, claim 6 and its dependent claim 7 are submitted to be allowable.

Customer No.: 31561
Docket No.: 12190-US-PA
Application No.: 10/708,015

Further, Applicants submit that for similar reason addressing the allowability of claim 3, claim 7 also bring patentable weight since it contain allowable subject matter of **"when the contrast evaluator determines the peak value higher than the predetermined threshold, the contrast value is 1; otherwise, the contrast value is a value of the predetermined threshold divided by the peak value"**, that has been discussed above (Emphasis added).

Allowable Subject Matter

Claims 4 and 5 are objected to as being dependent upon a rejected base claim.

Applicants submit that claims 4 and 5 remain unchanged from their allowable forms, thus their allowable status is solicited to be maintained. Further, Applicants submit that claim 1 is believed to be allowable as discussed above, and now claims 4 and 5 depend on allowable independent claim 1, thus they should be allowable in their current forms.

Customer No.: 31561
Docket No.: 12190-US-PA
Application No.: 10/708,015

CONCLUSION

For at least the foregoing reasons, it is believed that the pending claims 1-7 are in proper condition for allowance and an action to such effect is earnestly solicited. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

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Respectfully submitted,

Belinda Lee

Belinda Lee

Registration No.: 46,863

Jianq Chyun Intellectual Property Office
7th Floor-1, No. 100
Roosevelt Road, Section 2
Taipei, 100
Taiwan
Tel: 011-886-2-2369-2800
Fax: 011-886-2-2369-7233
Email: belinda@jicpgroup.com.tw
Usa@jicpgroup.com.tw